Appl. No. 09/553,669 .
Amdt. Dated November 12, 2003
Reply to Office action of October 24, 2003

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

Claims 1-140 (canceled)

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Claim 141 (new): A method for specifying, capturing, locating, extracting and storing data from a network, comprising: specifying at least one target datum accessible from a network location addressable by a network address; generating one or more sets of input parameters, allowing capture of one or more sets of network data from said network location; capturing said one or more sets of network data from said network location at specified dates and times; locating said at least one target datum in variable format said sets of network data; extracting said at least one target datum from said variable format said sets of network data; and storing said at least one target datum in a file, a database, or any storage medium.

Claim 142 (new): The method of claim 141, wherein said network is an Internet and said network location corresponds to a web page.

Claim 143 (new): The method of claim 141, wherein said specifying at least one target datum includes a graphical interface, wherein said graphical interface may include or be part of a web browser.

Claim 144 (new): The method of claim 141, wherein said specifying at least one target datum further comprises: specifying data capture times including, but not limited to, starting dates, starting times, ending dates, ending times, months of the year, weeks of the month, days of the month, days of the week; and storing the specifications of said data capture times in a file, a database, or any storage medium.

Appl, No. 09/553,669.

Amdt. Dated November 12, 2003.

Reply to Office action of October 24, 2003.

Claim 145 (new): The method of claim 141, wherein said specifying at least one target datum further comprises setting up to perform substitution of input parameters, wherein said setting up to perform substitution of input parameters includes: parsing URL strings to locate and identify input parameter names and types; locating and extracting <INPUT> elements from HTML or XML data; specifying input parameter types and input parameter values; and storing the specifications of said input parameters in a file, a database, or any storage medium.

Claim 146 (new): The method of claim 145, wherein said input parameter values are: static text strings; or automatically generated numeric sequences; or retrieved from a file; or retrieved from a database; or retrieved from any storage medium.

Claim 147 (new): The method of claim 141, wherein said specifying at least one target datum further comprises: specifying target data types, wherein said target data types include, but are not limited to, text, hypertext, hyperlinks, date on time values, input parameter values, invariant reference data, image or graphical data; and storing specifications of said target data types in a file, a database, or any storage medium.

Claim 148 (new): The method of claim 141, wherein said specifying at least one target datum further comprises setting up to perform dynamic document object model tree matching, wherein said setting up to setting up to perform dynamic document object model tree matching includes: capturing said one or more sets of network data from a network location; extracting hypertext markup language (HTML) or extensible markup language (XML) elements from said network data; generating a reduced document object model template of said network data using extracted HTML or XML elements; and storing said reduced document object model template in a file, a database, or any storage medium.

Appl. No. 09/553,669 Amdt. Dated November 12, 2003 Reply to Office action of October 24, 2003

Claim 149 (new): The method of claim 141, wherein said specifying at least one target datum further comprises setting up to perform dynamic tag string matching, wherein said setting up to perform dynamic tag string matching includes: capturing said one or more sets of network data from a network location; extracting hypertext markup language (HTML) or extensible markup language (XML) elements from said network data; generating a reduced tag string template of the network data using extracted HTML or XML elements; and storing said reduced tag string template in a file, a database, or any storage medium.

Claim 150 (new): The method of claim 141, wherein said capturing from said network location further comprises performing parameter substitution to generate one or more sets of input parameters; repeatedly capturing from said network location for each of said one or more sets of input parameters, where said each of one or more sets of input parameters provides different target data from said network location.

Claim 151 (new): The method of claim 150, wherein said performing parameter substitution further comprises substitution of one or more nested input parameters, wherein said substitution of said one or more nested input parameter includes generating one or more sets of input parameters, where said each of one or more sets of input parameters provides different target data from said network location.

Claim 152 (new): The method of claim 141, wherein said at least one target datum is extracted from variable format hypertext markup language (HTML) or extensible markup language (XML) data using: character sequence bounding; or dynamic document object model tree matching; or dynamic tag string matching.

Claim 153 (new): The method of claim 152, wherein said dynamic tag string matching or dynamic document object model tree matching further comprises using invariant reference data to increase robustness of location and extraction of said at least one target datum.

Appl. No. 09/553,669

Amdt. Dated November 12, 2003

Reply to Office action of October 24, 2003

Claim 154 (new): The method of claim 141, wherein said extracting said at least one target datum further comprises: performing color analysis of extracted image or graphical data to identify possible foreground pixels; performing connected component analysis, noise, line and blob removal to foreground pixels; generating possible text blocks from remaining foreground pixels; performing character recognition on possible text blocks; filtering recognition results to remove invalid data from recognition of non-text pixels; and storing the filtered text in a file, a database, or any storage medium.

Claim 155 (new): The method of claim 141, wherein said capturing one or more sets of network data further comprises using a watchdog timer to detect hung data capture attempts, and said hung data capture attempts are automatically aborted and reattempted.

Claim 156 (new): A method for capturing and storing data from a network, comprising: specifying at least one target datum accessible from a page of an existing web browser; capturing page data from said page at specified dates and times; locating said at least one target datum in variable format said page data; extracting said at least one target datum from said page data; and storing said at least one target datum extracted from said web browser page in a file, a database, or any storage medium.

Claim 157 (new): The method of claim 156, wherein said page of said existing web browser is defined by hypertext (HTML) or extensible markup language (XML).

Claim 158 (new): The method of claim 156, wherein said specifying said at least one target datum includes graphically highlighting and isolating HTML or XML elements corresponding to said at least one target datum, and said graphically highlighting and isolating HTML or XML elements includes using a mouse, joystick, trackball, or any pointing device.

Claim 159(new): The method of claim 156, wherein said specifying said at least one target datum includes specifying input parameters values in a menu-driven graphical interface.

Appl. No. 09/553,669 Amdt. Dated November 12, 2003 Reply to Office action of October 24, 2003

Claim 160 (new): A data capture and storage system, comprising: a graphical interface element configured to display at least one target page; a selection device operating to enable selection of one or more target datum on said at least one target page for capture, extraction and storage; and a processor coupled to said graphical interface element, said processor capable of being programmed with a plurality of configurations to capture, locate, extract, and store said one or more target datum according to said plurality of configurations.

Claim 161 (new): The method of claim 160, wherein said graphical interface element includes or is part of an existing web browser used to display said at least one target page with added features to enable target data capture.

Claim 162 (new): The method of claim 160, wherein said selection device is a mouse, joystick, trackball, or any pointing device.

Claim 163 (new): The method of claim 160, wherein said processor includes an element configured to receive a current date and time, said processor operating to capture, locate, extract and store said target data from said at least one target page when the current date and time matches a specified next capture date and time.